

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**In re Application of:**

Grace Sun et. al.

Serial No.:

10/721,971

Group Art Unit: 2811**Filed:**

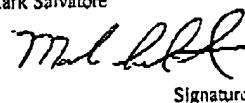
November 24, 2003

Examiner:**For:**Method for Creating Barrier Layers
for Copper Diffusion**Atty Docket:** LSI1P235 / 03-1119

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the date below:

Mark Salvatore

June 23, 2004



Signature

RECEIVED**INFORMATION DISCLOSURE STATEMENT**

JUN 23 2004

OFFICIAL

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The references listed in the attached form, copies of which are attached, may be material to examination of above-identified application. Applicants submit these references in compliance with their duty of disclosure pursuant to 37 CFR 1.56 and 1.97.

It is requested that the information disclosed herein be made of record in the application.

This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

If it is determined that any additional fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 12-2252.

LSI Logic Corporation
1621 Barber Lane, MS D-106
Milipitas, CA 95035
408-433-7475

Date: 23 Jun 04

Respectfully submitted,



Timothy Croll

Reg. No. 36,771

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

She

of 1

Complete if Known

Application Number	10/721,971
Filing Date	11/24/2003
First Named Inventor	Grace Sun
Art Unit	2811
Examiner Name	
Attorney Docket Number	03-1119/LSI1P235

Attorney Docket Number 03-1119/LSI1P235

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Please type a plus sign (+) inside this box



PTO/SB/21 (12/97)
Approved for use through 9/30/2000. OMB 0651-0031
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

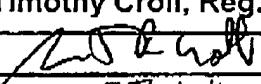
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>		Application Number	10/721,971
		Filing Date	November-24, 2003
		First Named Inventor	Grace Sun
		Group Art Unit	2811
		Examiner Name	
Total number of pages in this submission	4	Attorney Docket Number	LSI1P235 / 03-1119

ENCLOSURES (check all that apply)

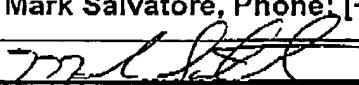
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and
<input type="checkbox"/> Amendment/Response	<input type="checkbox"/> Licensing-related Paper	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavit(s)/Declaration(s)	<input type="checkbox"/> To Convert a Provisional Application	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of time request	<input type="checkbox"/> Power of Attorney, Change of Correspondence Address	<input checked="" type="checkbox"/> Additional Enclosure(s) <i>(please identify below):</i>
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	1. Return address postcard for PTO mailroom to date stamp.
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Small Entity Statement	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Response to Missing Parts/Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Individual Name	Timothy Croll, Reg. No. 36,771, Phone: [+1] 408-433-7472
Signature	
Date	23 Jun 04

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: **June 23, 2004**

Typed or printed name	Mark Salvatore, Phone: [+1] 408-433-7472
Signature	
	Date 06-23-04

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PTO/SB/17 (2/98)

Approved for use through 9/20/2000. GMB 063 L-0022

. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL

Patent Fees are subject to annual revision on October 1.

These are the fees effective October 1, 1997.

Small Entity payments must be supported by a small entity statement, otherwise large entity fees must be paid. See Forms PTO/SB/09-12.

See 37 C.F.R. 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT

(\$)

Complete if Known	
Application Number	10/721,971
Filing Date	November-24, 2003
First Named Inventor	Grace Sun
Group Art Unit	2811
Examiner Name	
Attorney Docket No.	LSI1P235 / 03-1119

METHOD OF PAYMENT (check one)		FEE CALCULATION (continued)																																																																																																																																																																																					
1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payment to: Deposit Account Number 12-2252 Deposit Account Number LSI LOGIC CORPORATION <input checked="" type="checkbox"/> Charge Any Additional Fee required Under 37 C.F.R. 1.16 at the Mailing of the Notice of		3. ADDITIONAL FEES <table border="1"> <thead> <tr> <th>Larg eFee Code (\$)</th> <th>Entit yFee Code (\$)</th> <th>Larg eFee Code (\$)</th> <th>Entit yFee Code (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing request for reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>113</td><td>1,840*</td><td>113</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>116</td><td>400</td><td>216</td><td>200</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>117</td><td>950</td><td>217</td><td>475</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>118</td><td>1,510</td><td>218</td><td>755</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>128</td><td>2,060</td><td>228</td><td>1,030</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>119</td><td>310</td><td>219</td><td>155</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>310</td><td>220</td><td>155</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>270</td><td>221</td><td>135</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>141</td><td>1,320</td><td>241</td><td>660</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>142</td><td>1,320</td><td>242</td><td>860</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>143</td><td>450</td><td>243</td><td>225</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>670</td><td>244</td><td>335</td><td>Plant issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commission</td><td></td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Petitions related to provisional application</td><td></td></tr> <tr><td>126</td><td>240</td><td>128</td><td>240</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>146</td><td>790</td><td>246</td><td>395</td><td>Filing a submission after final rejection (37 CFR 1.129)</td><td></td></tr> <tr><td>148</td><td>790</td><td>249</td><td>395</td><td>For each additional invention to be examined (37 CFR 1.129 (b))</td><td></td></tr> <tr><td colspan="2">Other fee (specify)</td><td colspan="4"></td></tr> <tr><td colspan="2">Other fee (specify)</td><td colspan="4"></td></tr> <tr> <td colspan="2">SUBTOTAL (1) (\$ 0.00)</td> <td colspan="4">SUBTOTAL (3) (\$ 0.00)</td> </tr> </tbody> </table>		Larg eFee Code (\$)	Entit yFee Code (\$)	Larg eFee Code (\$)	Entit yFee Code (\$)	Fee Description	Fee Paid	105	130	205	65	Surcharge - late filing fee or oath		127	50	227	25	Surcharge - late provisional filing fee or cover sheet		139	130	139	130	Non-English specification		147	2,520	147	2,520	For filing request for reexamination		112	920*	112	920	Requesting publication of SIR prior to Examiner action		113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action		115	110	215	55	Extension for reply within first month		116	400	216	200	Extension for reply within second month		117	950	217	475	Extension for reply within third month		118	1,510	218	755	Extension for reply within fourth month		128	2,060	228	1,030	Extension for reply within fifth month		119	310	219	155	Notice of Appeal		120	310	220	155	Filing a brief in support of an appeal		121	270	221	135	Request for oral hearing		138	1,510	138	1,510	Petition to institute a public use proceeding		140	110	240	55	Petition to revive - unavoidable		141	1,320	241	660	Petition to revive - unintentional		142	1,320	242	860	Utility issue fee (or reissue)		143	450	243	225	Design issue fee		144	670	244	335	Plant issue fee		122	130	122	130	Petitions to the Commission		123	50	123	50	Petitions related to provisional application		126	240	128	240	Submission of Information Disclosure Stmt		581	40	581	40	Recording each patent assignment per property (times number of properties)		146	790	246	395	Filing a submission after final rejection (37 CFR 1.129)		148	790	249	395	For each additional invention to be examined (37 CFR 1.129 (b))		Other fee (specify)						Other fee (specify)						SUBTOTAL (1) (\$ 0.00)		SUBTOTAL (3) (\$ 0.00)			
Larg eFee Code (\$)	Entit yFee Code (\$)	Larg eFee Code (\$)	Entit yFee Code (\$)	Fee Description	Fee Paid																																																																																																																																																																																		
105	130	205	65	Surcharge - late filing fee or oath																																																																																																																																																																																			
127	50	227	25	Surcharge - late provisional filing fee or cover sheet																																																																																																																																																																																			
139	130	139	130	Non-English specification																																																																																																																																																																																			
147	2,520	147	2,520	For filing request for reexamination																																																																																																																																																																																			
112	920*	112	920	Requesting publication of SIR prior to Examiner action																																																																																																																																																																																			
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action																																																																																																																																																																																			
115	110	215	55	Extension for reply within first month																																																																																																																																																																																			
116	400	216	200	Extension for reply within second month																																																																																																																																																																																			
117	950	217	475	Extension for reply within third month																																																																																																																																																																																			
118	1,510	218	755	Extension for reply within fourth month																																																																																																																																																																																			
128	2,060	228	1,030	Extension for reply within fifth month																																																																																																																																																																																			
119	310	219	155	Notice of Appeal																																																																																																																																																																																			
120	310	220	155	Filing a brief in support of an appeal																																																																																																																																																																																			
121	270	221	135	Request for oral hearing																																																																																																																																																																																			
138	1,510	138	1,510	Petition to institute a public use proceeding																																																																																																																																																																																			
140	110	240	55	Petition to revive - unavoidable																																																																																																																																																																																			
141	1,320	241	660	Petition to revive - unintentional																																																																																																																																																																																			
142	1,320	242	860	Utility issue fee (or reissue)																																																																																																																																																																																			
143	450	243	225	Design issue fee																																																																																																																																																																																			
144	670	244	335	Plant issue fee																																																																																																																																																																																			
122	130	122	130	Petitions to the Commission																																																																																																																																																																																			
123	50	123	50	Petitions related to provisional application																																																																																																																																																																																			
126	240	128	240	Submission of Information Disclosure Stmt																																																																																																																																																																																			
581	40	581	40	Recording each patent assignment per property (times number of properties)																																																																																																																																																																																			
146	790	246	395	Filing a submission after final rejection (37 CFR 1.129)																																																																																																																																																																																			
148	790	249	395	For each additional invention to be examined (37 CFR 1.129 (b))																																																																																																																																																																																			
Other fee (specify)																																																																																																																																																																																							
Other fee (specify)																																																																																																																																																																																							
SUBTOTAL (1) (\$ 0.00)		SUBTOTAL (3) (\$ 0.00)																																																																																																																																																																																					
SUBMITTED BY		Complete (if applicable)																																																																																																																																																																																					
Typed or printed name	Timothy Croll			Reg. Number	36,771																																																																																																																																																																																		
Signature	2TRh-U			Date	23 JUN 04																																																																																																																																																																																		
	Deposit Account User ID																																																																																																																																																																																						

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231

**FAX COVER SHEET**

LSI LOGIC CORPORATION
Office of General Counsel
1621 Barber Lane
M/S D-106
Milpitas, CA 95035
Fax: (408) 433-7460

RECEIVED
CENTRAL FAX CENTER
JUN 23 2004

Date: June 23, 2004
To Name: USPTO – Box: IDS
Fax: (703) 872-9306
Phone: (703) 305-8283

OFFICIAL

From: Name: Manu Kashyap, Intellectual Property Paralegal
Corporate Legal Dept.
Telephone: (408) 433-7475
Fax: (408) 433-7460
Re: 10/721,971

Number of Pages Including this Page 5

This facsimile transmission is intended for the addressee indicated above. It may contain information that is privileged, confidential or otherwise protected from disclosure. Any review, dissemination or use of this transmission or its contents by persons other than the addressee is strictly prohibited. If you have received this transmission in error, please notify us immediately by telephone, and mail the original to us at the above address.

MESSAGE:

US Serial No.: 10/721,971
Filing Date: 11/24/2003
Group Art Unit: 2811
Docket No: 03-1119
Examiner:
Filing of IDS

Please notify us immediately if any pages are not received.